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of ages, the suppressed features that characterized full maturity in the original, became, under the law of heredity, permanent ones.

It was not often that we had such clear evidence of the unity of origin in two certainly distinct species, and as supporting the modern ideas of evolution, the case was worthy of being placed on record.

DECEMBER 16.

The President, Dr. JOS. LEIDY, in the chair.

Twenty-nine persons present.

A paper, entitled "Homologies of the Vertebrate Crystalline Lens," by Benjamin Sharp, M. D., was presented for publication.

The death of Robt. L. Weber, M. D., a member, was announced.

Immediate Influence of Pollen on Fruit.—Mr. THOMAS MEEHAN directed attention to an ear of Indian corn on the table, sent by Mr. Burnett Landreth, which had nearly all one side with brownish-red grain, the other side creamy white, which was the normal color of the variety. Usually the intermixture of colors which occasionally occurred in an ear of corn, is attributed to cross-fertilization. It is apparent that this could not be the case in this instance. The whole solid block is colored, and, at the edge of the colored mass only half a grain would be colored in some instances. The coloring influence had evidently spread from some central point, quite independent of any single grain, and had spread from grain to grain through the receptacle, until the coloring material was exhausted. In cross-fertilization from the entangled position of the silk-like pistils, no such regularity of coloring in adjoining grains could occur. On reflection we may understand that at times color in corn must come from causes independent of cross-fertilization, as the departure in the first instance from one color must be from an innate power to vary in color, independently of any pollinating influence.

The facts are interesting as bearing on many problems as yet not wholly solved. Much has been said about the changes in nature being by slow modifications through long ages, but we have frequent instances of sudden leaps. There are no gradations between the colors of these grains. Again, it is in dispute how far cross-fertilization influences the seed. Generally, no immediate influence is conceded; we have to wait till the seed grows, and we can examine the new plant to ascertain the potency of the several parents. So far, corn has been the chief, and almost the only, evidence that the seed or its surroundings are immediately affected; but recently statements have been made that the receptacle in the strawberry—what we know in every-day life as the

strawberry—is similarly influenced. There are some varieties wholly pistillate, and it is claimed that when pollen is applied from other varieties, the resultant fruit is that of the male parent. It is of great practical importance that such a question should be decided by undoubted facts. Experience in other directions does not confirm these views.

The *Mitchella repens* is really a dioecious plant. Many years ago he found one plant with white berries, and removed some portion to his own grounds, where, isolated from others, it produces no fruit. In its native location it bears white berries freely, though the pollen is from the original scarlet-berried forms. Mr. Jackson Dawson had given him a similar case on Professor Sargent's grounds, where a white-berried *Prinos verticillatus* is produced, though it must have pollen from the original red-berried form. Other illustrations were referred to. To those who looked for regularity of rule in these cases, and in the light of the specimen of corn before the meeting, there might be a doubt whether the variation in corn, often attributed to cross-fertilization, may not, in some cases, result from an innate power to vary. It did not really follow that the rule should be uniform, for those who had experience in hybridizing knew how variable were the results, even from the seed of a single flower. Parkman had obtained, in lilies, seedlings so exactly like the female parent, that only for the remarkable form from the same seed-vessel, known as *Lilium Parkmani*, it might have been doubted if some mistake as to the use of foreign pollen had not been made. If so little influence could occasionally be found at a remote end of the line, we may reasonably look for an immediate influence at the nearer end in some exceptional cases. But there appeared to be no carefully conducted experiments on corn recorded anywhere, though the belief in the immediate influence of strange pollen is a reasonable one so far as general observation goes. It seemed, however, to him, with the specimen of innate variation in corn before us, more careful experiments with corn and other things are desirable.

DECEMBER 23.

The President, Dr. JOSEPH LEIDY, in the chair.

Thirty-two persons present.

The following papers were presented for publication:—

“On a Remarkable Exposure of Columnar Trap near Orange, N. J.,” by Prof. Angelo Heilprin.

“Note on Some New Foraminifera from the Nummulitic Formation,” by Prof. Angelo Heilprin.